



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/431,451	11/01/1999	PERIANNAN SENAPATHY	34623.005	8738

7590

06/09/2003

INTELLECTUAL PROPERTY DEPARTMENT  
DEWITT ROSS & STEVENS SC  
FIRSTAR FINANCIAL CENTRE  
8000 EXCELSIOR DRIVE SUITE 401  
MADISON, WI 537171914

EXAMINER

SISSON, BRADLEY L

ART UNIT

PAPER NUMBER

1634

DATE MAILED: 06/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

## Application No.

09/431,451

## Applicant(s)

SENAPATHY, PERIANNAN

## Examiner

Bradley L. Sisson

## Art Unit

1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-12, 14-26, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-12, 14-26, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 0603
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Art Unit: 1634

### DETAILED ACTION

1. The finality of the prior Office action is hereby withdrawn.

#### *Information Disclosure Statement*

2. Attention is drawn to the Declaration of October 29, 1999 wherein is found the following:

I acknowledge the duty to disclose information material to the examination of this application as defined in Section 1.56 of Title 37 Code of Federal Regulations.

\* \* \*

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF SOLE OR FIRST INVENTOR Periannan Senapathy  
INVENTOR'S SIGNATURE P. Senapathy DATE 10-29-99  
Residence: Madison, Wisconsin  
Citizenship: India Post Office Address: 3022 Edenberry Street, Madison, WI 53711

3. It is noted with particularity that the record does not reflect that applicant made the Examiner aware of copending applications nor the issuance of same, nor does the record reflect that applicant made the Examiner aware of prior that was cited in a copending application and which affects the patentability of the instant claims.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. It is noted with particularity that the following rejection was not necessitated by an amendment; however, the prior art cited herein was known to applicant (cited in US Patent 6,521,428 B1) yet not cited in the instant application.

7. Claims 1-8, 10-12, 14-26, 28, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamb (US 5,807,679).

8. Kamb, column 6, discloses a method of amplifying nucleic acids using primers that have a length of from 13-30 nucleotides and which can have both a fixed region and a variable region. As et forth in Column 6:

#### B. Primers for Arbitrary PCR

A set of 30 primers is prepared. These primers are matched so that they will work equally well or nearly equally well under the single set of PCR conditions to be used. For example, they may be designed so each has a predicted  $T_m$  within a certain narrow range. The primers can be designed each to have a unique 5' sequence (which will later be used as the primer for sequencing reactions) and a degenerate 3' sequence or the primers may simply be individual primers of arbitrary sequence. Various lengths of primers can be designed, but it is preferable to use primers of lengths 13–30 nucleotides, more preferably primers of lengths 15–25 nucleotides, and most preferably primers of 15–20 nucleotides. Primers which are 16 nucleotides in length are most commonly used.

The above disclosure is considered to meet the limitation that there be provided a plurality of primers; that the primers be from “about 10 to about 30 nucleotides in length;” and that they contain a 5' region that is randomized as well as a second or non-5' region that is not randomized.

9. Column 6 discloses performing PCR on host DNA that is part of a vector. Column 6 further teaches “[a]ny standard PCR conditions can be used.” Such a disclosure is considered to meet the limitation of amplifying genomic eukaryotic and prokaryotic sequence as well as amplifying RNA. Column 1, penultimate paragraph, states that RNA template can be used where one wishes to amplify only exons. The above disclosures are considered to meet the limitation that genomic, chromosomal, and subchromosomal regions can be amplified.

10. The aspect of performing an amplification reaction with said plurality of primers is considered to meet the limitation of generating members of a library and that the amplicons are added to the library.

Art Unit: 1634

11. Column 1 discloses research is being conducted into sequencing the genomes of bacteria (prokaryotes), viruses and humans.
12. Column 1 discloses research is being conducted into sequencing the genomes of bacteria (prokaryotes), viruses and humans.
13. The aspect of amplifying nucleic acids that have greater than 50%, less than 50% or 50% G:C content (claims 14 and 28) is considered to fairly encompass all nucleic acids and a such, the nucleic acids amplified by Kamb have as an inherent property just such a G:C content.

#### ***Double Patenting***

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
15. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).
16. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).
17. Claims 1-8, 10-12, 14-26, 28, and 29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 8, 11, 12, 16, 19, and 25-29 of U.S. Patent No. 6,521,428 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed method is considered to encompass sequencing reactions ('428 claims 1, 8, 11, 12, 16, and 19) as well as amplifying nucleic acids ('428 claims 25-29).

Art Unit: 1634

18. Claims 1-8, 10-12, 14-26, 28, and 29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, 9, and 12 of U.S. Patent No. 6,528,288 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed method of amplifying nucleic acids fairly encompasses the patented method of sequencing by amplification.

### *Conclusion*

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

20. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley L. Sisson whose telephone number is (703) 308-3978. The examiner can normally be reached on 6:30 a.m. to 5 p.m., Monday through Thursday.

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (703) 308-1119. The fax phone numbers for the

Art Unit: 1634

organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9307 for After Final communications.

23. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



Bradley L. Sisson  
Primary Examiner  
Art Unit 1634

BLS  
June 7, 2003